

Digi TransPort® WR Family

Enterprise Class Cellular Routers

Flexible, enterprise class cellular routers for remote and mobile networking applications.



Overview

The Digi TransPort WR family of cellular routers offers an all-in-one mobile communications solution with true enterprise class routing, security and firewall. These multifunction cellular routers feature a flexible design with optional integrated Wi-Fi access point (with multi SSID) / Client, USB, serial, VDSL, 1-, 2- or 4-port Ethernet switch. Additional configuration options include multiple serial ports (async or sync), GPS or telemetry I/O.

The Digi TransPort family offers an advanced routing, security and firewall feature set including stateful inspection firewall and integrated VPN. Enterprise class protocols incorporate BGP, OSPF and VRRP+, a patented technology built upon the popular VRRP failover standard providing true auto-sensing, auto-failure and auto-recovery of any line drop.

Digi TransPort WR routers are ideal for transportation, POS, energy, medical, financial and digital signage as well as cellular backup and remote device connectivity applications.

Digi management solutions provide easy setup, configuration and maintenance of large installations of remote Digi TransPort devices. iDigi® Manager Pro™ offers web-based device management for remote Digi cellular routers and gateways. Also available is the windows based Digi Remote Manager™ for customer installed device management and reporting.

Related Products



VPN Concentrators

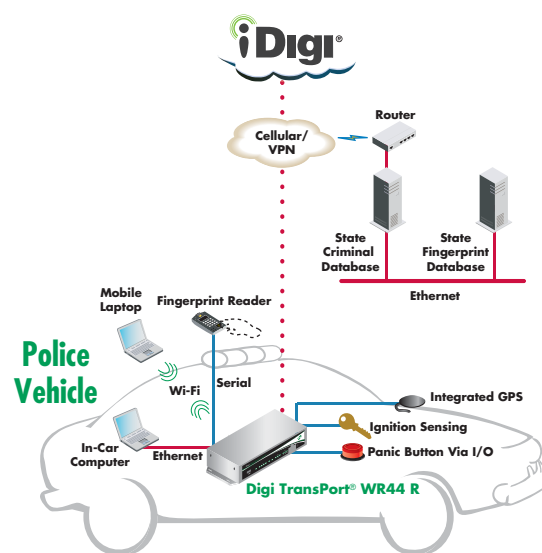


Digi Remote Management



Accessories

Application Highlight



Features/Benefits

- Enterprise class cellular routers with advanced dynamic routing, security and firewall features
- High speed cellular interfaces: GSM EDGE, HSPA, HSPA+ and CDMA EV-DO
- Optional integrated 802.11b/g (WR44/44 R) or 802.11b/g/n (WR41) and 1-, 2- or 4-port Ethernet switch
- Flexible interfaces including serial (async/sync), GPS, VDSL, USB, CAN Bus and telemetry I/O, with flexible DC power options
- Powerful integrated end user programming
- Remote management software download configuration management with iDigi Manager Pro

Specifications Digi TransPort® WR44 RR Digi TransPort® WR44/WR44 R Digi TransPort® WR41 Digi TransPort® WR21				
Wireless Interfaces				
WWAN**				
GSM/CDMA Gobi (U8)	GSM and CDMA supported on the same module via Gobi diversity; UMTS/HSPA/HSPA+ (850/900/1700 AWS/1800/1900/2100 MHz with Rx Diversity); EV-DO Rev A (800/1900 MHz with Rx Diversity); Transfer Rate (max): 5.76 Mbps Up, 14.4 Mbps Down			
LTE - Verizon (coming soon) (L2)	700 MHz, Verizon LTE; Fall back to CDMA 850/1900 MHz; Transfer rate (max): 50Mbps Up, 100 Mbps Down			
LTE - AT&T (coming soon) (L3)	700 MHz / AWS, GSM LTE; 3G fall back to HSPA 850/AWS/1900/2100 MHz; 2G fallback to 850/900/1800/1900 MHz; Transfer rate (max): 50 Mbps Up, 100 Mbps Down			
Edge (E1)	N/A	GPRS/EDGE Class 10; 850/900/1800/1900 MHz; Transfer rate (max): 236 Kbps Up/Down		
CDMA 450 (Cx)	N/A	450 MHz; R-UIM support; Transfer rate (max): 1.8 Mbps Up, 3.1 Mbps Down		
CDMA 1xRTT (Bx)	N/A			800/1900 MHz; Transfer rate (max): 153Kbps up/down
Connector	2 x 50 Ω TNC (Center pin: female)	U8, L2, & L3 variants: 2 x 50 Ω SMA (Center pin: female); E1, Cx, Bx variants: 1 x 50 Ω SMA (Center pin: female)		
SIM Slots	2			
SIM Security	SIM slot cover plate	SIM slot cover plate included with WR44 R; Optional on WR44	Optional SIM slot cover plate	
Wi-Fi*				
Standard	802.11b/g/n	802.11b/g; 802.11b/g/n (coming soon)	Option of 802.11b/g or 802.11b/g/n	N/A
Modes	Access point, Client and support for multiple SSID			
Transmit Power	17 dBm ± 2 dBm	20 dBm + 1.0/-1.5 dBm	17 dBm ± 2 dBm	
Receive Sensitivity	54 Mbps OFDM, 10% PER, -70 dBm, 11 Mbps CCK, 8% PER, -83.5 dBm	54 Mbps / <-72 dBm and 11 Mbps / -90 dBm	54 Mbps / -70 dBm and 11 Mbps / -83.5 dBm	
Security	Open or shared key authentication; WEP (64 and 128 bit) encryption; WPA/WPA2 with Radius (WPA Enterprise and pre-shared keys)			
Connector	1 x 50 Ω RP-TNC (Center pin: male)	2 x 50 Ω RP-SMA (Center pin: male)		
GPS*				
Channels	50			N/A
Sensitivity	-163 dB			
Protocol	NMEA 0183 V2.3 sentence output; +3.3 VDC active antenna drive; NMEA stream to local serial port or over TCP/IP			
Navigation	Galileo ready			
Augmentation	SBAS			
Cold Start	< 27 seconds TTFF (90%)			
Horizontal Accuracy	< 2.5 meters (90%)			
Velocity Accuracy	0.1m/s			
Connector	1 x 50 Ω RP-TNC (Center pin: male)	1 x 50 Ω SMA (Center pin: female)		
Other				
XBee	N/A			
Satellite	N/A			
Wired Interfaces				
Serial				
Ports	1	1; Expansion cards available to increase serial ports		1
Standard	RS-232; Expansion cards available in RS-422/RS-485			Option of RS-232 or RS-232/422/485
Async/Sync	Async	Async; Expansion cards available in sync		
DTE/DCE	DCE			
Signal Support	TXD, RXD, RTS, CTS, GND	TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI	TXD, RXD, RTS, CTS, DTR, DCD	TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI
Flow Control	Software (XON/XOFF), Hardware supported			
COM Port Redirector	RealPort®			
Connector	5-pin A-coded M12 female	DB-9	RJ-45	DB-9

* Optional Hardware
 ** Transfer Rates are network operator dependent
 *** Reduced cellular performance may occur above +60° C. Standard Temperature power supplies may reduce temperature range.

Specifications Digi TransPort® WR44 RR Digi TransPort® WR44/WR44 R Digi TransPort® WR41 Digi TransPort® WR21				
Wired Interfaces (Continued)				
Ethernet				
Ports	4		1	Option of 1 or 2
Standard	IEEE 802.3			
Physical Layer	10/100 Base-T			
Data Rate	10/100 Mbit/s			
Mode	Full or Half duplex			
Interface	Auto MDI/MDIX			
Connector	Option of 4-pin D-coded M12 female or 8-pin A-coded M12 female	RJ-45		
I/O				
Digital I/O	Input 4 - 28 VDC / Output: 28 VDC 50 mA max		Extended temperature variants: Input 4 - 28 VDC / Output: 28 VDC 50 mA max	N/A
Connector	4-pin A-coded M12 Male (only 2 pins are used for I/O; the other 2 pins are used for DC Power)	4-pin Molex (only 2 pins are used for I/O; the other 2 pins are used for DC power)	Extended temperature variants: 4-pin Molex (only 2 pins are used for I/O; the other 2 pins are used for DC power)	N/A
USB				
Ports	N/A	1		
Standard		USB 1.0; WR44v2: USB 2.0		USB 2.0
Signaling		Full- or low-speed		High-speed
Connector		Type A		
DSL*				
Technology	N/A	VDSL2, ADSL2+, ADSL2, ADSL	N/A	N/A
Standard		Option of Annex A/M or B		
Connector		RJ-11		
Other				
Expansion Cards	N/A	Optional expansion cards available for GPS, fleet, telemetry (digital/analog I/O), ISDN/PSTN, serial and DialServ. See page 5 for more information.		N/A
Software/Management				
Management (Cloud-based)	iDigi® Manager Pro™			
Management (Local)	Web Interface via HTTP/HTTPS; CLI via serial port, Telnet, SSH			
Software	Python, iDigi® Dia, Digi ESP™ development environment			
Software Packages (see page 4 for details)	Enterprise			Option of Standard or Enterprise
Memory	128 MB NAND Flash/64 MB DDR2 SDRAM		64 MB RAM, 32 MB NOR Flash	128 MB NAND Flash/128 MB DDR2 SDRAM
Power				
Input	9 – 36 VDC		8-48 VDC	9-30 VDC
Consumption	15W max, 8.5W typical		6W max, 4W typical	
Connector	4-pin A-coded M12 male (only 2 pins are used for power; the other 2 pins are used for I/O)	Locking barrel and 4-pin terminal block	Locking barrel or 4-pin terminal block (extended temperature models only)	Depending on model: Locking barrel or screw-down removeable terminal block
DC Power Cord*	4-pin A-coded M12 female to bare wire	Locking barrel to bare wire or 4-pin connector to bare wire		Locking barrel to bare wire
AC Power Supply*	(P/N: 76000917) 100W, 24 VDC output, 67-143 VDC input, EN50155 compliant; (P/N: 76000918) 400W, 14.2 VDC output, 40-100 VDC input, EN50155 and S-5702 compliant	100-240 VAC 50/60 Hz; Option of standard temperature or extended temperature		
Battery Backup	None			

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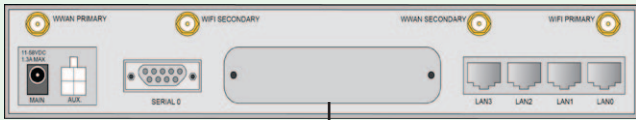

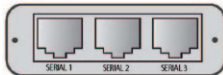




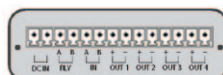
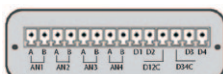
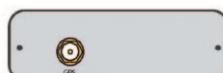
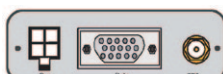
Specifications					Digi TransPort® WR44 RR	Digi TransPort® WR44/WR44 R	Digi TransPort® WR41	Digi TransPort® WR21
Physical								
Dimensions (L x W x H)	11.5 in x 6.65 in x 2.05 in (29.2 cm x 16.9 cm x 5.2 cm)	WR44: (non-DSL variants): 5.7 in x 8.3 in x 1.6 in (145 mm x 210 mm x 40 mm) WR44: (DSL variants): 5.7 in x 10.4 in x 1.6 in (145 mm x 264 mm x 40 mm) WR44 R: 5.5 in x 10 in x 1.9 in (140 mm x 254 mm x 48 mm)	4.7 in x 6.8 in x 1.3 in (120 mm x 173 mm x 32 mm)	3.9 in x 5.2 in x 1.3 in (100 mm x 131 mm x 32 mm)				
Weight	5.7 lbs (2.6 kg)	WR44: (non-DSL variants): 1.98 lb (0.9 kg) WR44: (DSL variants): 2.25 lbs (1 kg) WR44 R: 2.4 lbs (1.1 kg)	1.27 lb (0.53 kg)	1.08 lb (0.49 kg)				
Status LEDs	Power, 4x LAN, WiFi, Serial, WWAN (Link, Act, SIM), 3x Signal Strength	Power, 4x LAN, WiFi, Serial/DSL, WWAN (Link, Act, SIM), 3x Signal Strength	Power, LAN, WiFi, WWAN (Link, Act, SIM), 3x Signal Strength, Serial	Power, Service, WWAN, 3x Signal Strength				
Enclosure Material/Rating	Aluminium Alloy/ IP54	WR44: Industrial (Metal)/ IP50 WR44R: Aluminium Alloy/ IP50	Industrial (Metal)/ IP50					
Mounting	4x mounting slots on the unit's flange	WR44: Brackets for wall mount & DIN rail sold separately; WR44R: 4x mounting slots on the unit's flange	Brackets for wall mount & DIN rail sold separately	Brackets for wall mount & DIN rail sold separately				
Environmental								
Operating Temperature ***	-40° C to +75° C	WR44: (standard temp variants): 0° C to +60° C WR44: (extended temp variants)/ WR44 R: -40° C to +75° C Wi-Fi variants: -20° C to +75° C	-25° C to +70° C Wi-Fi variants: -10° C to +70° C	-35° C to +75° C				
Storage Temperature	-40° C to +85° C							
Relative Humidity	0% to 95% (non-condensing)	20% to 95% (non-condensing)						
Ethernet Isolation	2 kV RMS	1.5 kV RMS						
Serial Port Protection (ESD)	10 kV	15 kV						
Hazardous (Class 1 Div 2)	N/A			Optional				
Conformal Coating	Available upon request		N/A					
Approvals								
GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511							
CDMA/EV-DO	CDG TIA/EIA-690, CDG TIA/EIA-98-E							
Cellular Carriers	Certified by most major carriers. See www.digi.com for current listing.							
Safety	UL 60950, CSA 22.2 No. 60950, EN60950							
Emissions/Immunity	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class B							
Industry	AAR S-5702, EN50155, AREMA C & H	E-Marking (72/245/EEC, 2009/19/EC); Automotive Non-Immunity (2004/104/EC, 2005/49/EC, 2005/83/EC, 2006/28/EC)		N/A				
Warranty								
Product Warranty	3 years	WR44 - 5 years; WR44 R - 3 years	5 years					

* Optional hardware

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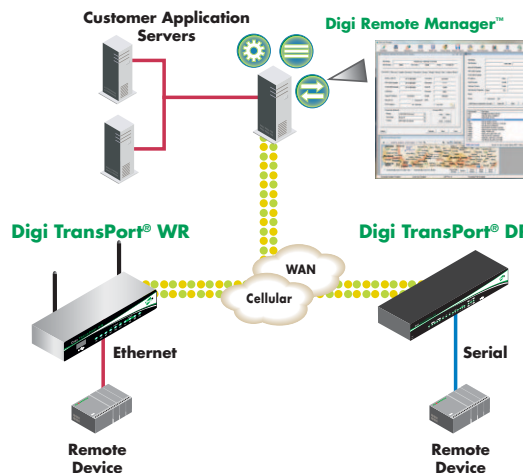
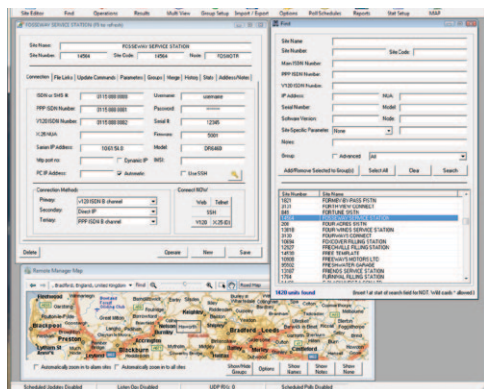
Software Packages		
Enterprise		Standard
Protocols	Same as Standard plus iDigi; Dynamic DNS client compatible with BIND9/No-IP/DynDNS	HTTP, HTTPS, FTP, SFTP, SSL, SMTP, iDigi SNMP, SNMP (v1/v2c/v3), SSH, Telnet and CLI for web management; remote management via software tool (option); SMS management, protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS
Security/Firewall/VPN	RADIUS TACACS+, SSL, SSLv2, SSLv3, FIPS 197, L2TP, (5 tunnels included); IPSec with IKEv1, IKEv2, ISAKMP; DES, 3DES and AES up to 256-bit encryption; SCEP for X.509 certificates, Open VPN client and server, PPTP; IPSec/PPP/L2TP VPN Server support; Stateful inspection firewall with scripting; Content Filtering (via 3rd party)	IP Filtering
Routing	Bridging, NAT/NAT-Traversal, NAPT forwarding; PPP, PPPoE, GRE; IP Routing Protocol: PPP, GRE, RIP (v1 & v2) OSPF, SRI, BGP; IP Failover: VRRP, VRRP+TM; VLAN support; STP (Spanning Tree Protocol); Automatic failover/failback to second GSM network/Standby APN; Firmware upgradable to IPv6; iGMP routing (multicast); IP pass-through (advanced)	NAT, NATP, IP pass-through
Specialty Protocol	DHCP; RealPort®; Modbus UDP/TCP to serial; Legacy protocols (including XOT), SNA/IP, TPAD and PAD); Protocol switch	DHCP; RealPort®

Expansion Cards	Connector	Specification
Available for Digi TransPort WR41/WR44/WR44 R		
		
Sync/Async Serial Port (S1)	 1 x DB-25	X.21/RS-422/RS-232 synchronous/asynchronous serial port
Async Serial Ports (A3)	 3 x RJ-45	3x asynchronous serial ports
PSTN (P1)	 1 x RJ-45	PSTN interface that can be used to dial out and receive calls. A PPP session is created over which IP traffic can be sent and received.
DialServ (P3)	 1 x RJ-11 (FXS)	Dial tone simulator to emulate local telco.
ISDN (I1)	 1 x RJ-45	ISDN Basic Rate Interface (BRI) which can be configured either as a TE (terminal endpoint) or as NT-1 (network termination). The option also includes an additional asynchronous serial port via a second RJ-45 port.
ISDN-U/PSTN (I3)	 1 x RJ-11, 1 x RJ-45	ISDN-U interface suitable for the USA plus PSTN interface. Can be configured for Bell-103 modulation in leased line mode as well as a normal PSTN interface.
Telemetry 1 (T1)	 1 x 14-pin terminal block	4 x Opto-isolated digital output ports and 1 x Opto-isolated digital input port. It also provides a relay I/O port, voltage monitoring port, and internal temperature monitoring. Fully programmable via Python for embedded Digi TransPort applications.
Telemetry 2 (T2)	 1 x 14-pin terminal block	4 x Analog and 4 x Digital I/O ports fully programmable via Python for embedded Digi TransPort applications.
GPS (G1)	 1x SMA	Fully-integrated GPS tracking. See main specifications area for details.
Fleet (F1)	 1 x 4-pin, 1 x 15-pin, 1 x SMA	Flexible transportation/fleet focused applications requiring CAN bus, J1708, GPS, Non-isolated digital I/O, Ignition Sense, 3-Axis accelerometer, and power control of Digi TransPort interfaces. Fully programmable via Python for embedded Digi TransPort applications.

Device Management Features

- View of all remote devices and their connection status
- Automatic registration of newly connected devices
- Remote device configuration
- Actions include device grouping and scheduling of operations
- Monitoring of user specified events
- Device statistic and report generation
- Alarm generation and alerting
- Secure access to all devices from web browser, anywhere
- Remote reboot of device and default reset
- Remote device management with iDigi Manager Pro, a Digi-hosted device management software

Easy Remote Configuration and Management



Line Art

Digi TransPort WR44 RR



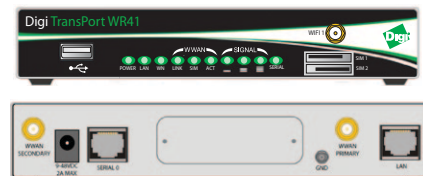
Digi TransPort WR44 (DSL variant)



Digi TransPort WR21



Digi TransPort WR41



Digi TransPort WR44/WR44 R

